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RPD Explorer

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Summary

The RPD Explorer is an interactive, spreadsheet-based tool for examining the data tables in the Requirements and Planning Document (RPD). This tool is based on the P&PD Explorer.

Background

The RPD is produced by the DoD and may be revised multiple times in a year as needed. It provides the top-level planning information for the nuclear weapons Stockpile, documented in tables of weapons by readiness state for a 25-year planning period. The RPD Explorer enables quick, graphical investigation of the tables in the RPD. The RPD Explorer is designed to operate on the RPD tables with minimal additional information.

RPD Tables

The RPD provides planning data on the size and composition of the stockpile, decomposed by weapon system and readiness state.

The RPD Explorer

The RPD Explorer reads key information from the RPD tables and generates graphs of the data tables. The tool output is organized into stockpile information and modernization programs.

The tool reads statistics on the stockpile plan, including maximum and minimum stockpile numbers by weapon system and when those occur. It also reads the start and completion of warhead modernization programs, weapon draw-down and weapon retirement.

The tool provides graphical output for stockpile quantities, which can be sorted and grouped by weapon system, stockpile leg, or weapon features. Additional groupings can be easily added through modification of an association table in the tool.

Plans for modernization programs are presented as timelines and tables of dates for transition in the stockpile. From these plans are derived workload for system assembly.

Tool Maintenance

The RPD Explorer is designed to be easily updated when a new RPD is produced. The tool reads data directly from RPD tables, which are provided in Excel format by NNSA and can be copied into the tool. As currently configured, a few indexes must be generated to ensure correct reading of the tables. For generating graphs, there are three association tables that can be modified to provide additional groupings.